Lloyd's Register

Rules and Regulations for the Classification of Special Service Craft, July 2010

Notice No. 4

Effective Date of Latest
Amendments:

See page 1

Issue date: November 2010

Lloyd’s Register is an exempt charity under the UK Charities Act 1993

Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the ‘Lloyd's Register Group’. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

RULES AND REGULATIONS FOR THE CLASSIFICATION OF SPECIAL SERVICE CRAFT, *July 2010*

Notice No. 4

This Notice contains amendments within the following Sections of the *Rules and Regulations for the Classification of Special Service Craft, July 2010.* The amendments are effective on the dates shown:

Part	***Chapter***	***Section***	***Effective date***
8	3	1	1 July 2011
8	7	3	1 July 2011
17	1	1	1 July 2011

It will be noted that the amendments also include corrigenda, which are effective from the date of this Notice.

The *Rules and Regulations for the Classification of Special Service Craft, July 2010* are to be read in conjunction with this
Notice No. 4. The status of the Rules is now:

Rules for Special Service Craft	Effective date:	July 2010
Notice No. 1	Effective date:	1 January 2011
Notice No. 2	Effective date:	1 January 2011
Notice No. 3	Effective date	1 February 2011
Notice No. 4	Effective date	1 July 2011

Part 8, Chapter 3

Scantling Determination for Mono-Hull Craft

Effective date 1 July 2011

■ *Section 1*
General

1.13 Mechanical properties of sandwich laminates

(Part only shown)

1.13.1 For the application of the various formulae relating to the use of sandwich construction, the following assumptions have been made:

(a) the sandwich skins carry ~~all~~ the majority of the bending load,

(b) the core carries ~~all~~ the majority of the shear load,

1.13.9 The direct core shear stress, τ_c, at the edges of a sandwich panel subjected to lateral pressure is to be determined from:

~~$\tau_c = \frac{p\,b\,k_S}{2t_c} \times 10^{-3}$ N/mm^2~~

$$\tau_c = \frac{p\,b\,k_S}{2(t_c+t_s)} \times 10^{-3} \quad \text{N/mm}^2$$

where

k_S = aspect ratio correction factor
= $0{,}32\,A_R + 0{,}36$ for $A_R \leq 2$
= $1{,}0$ for $A_R > 2$
A_R = panel length/panel breadth
t_c ~~is~~ and t_s are as defined in 1.5.1.

Part 8, Chapter 7

Failure Modes Control

Effective date 1 July 2011

■ *Section 3*
Stress control

3.2 Tensile and compressive stress

3.2.2 The ultimate compressive strength of the sandwich skin laminate shall not be taken greater than the critical skin buckling stress given by

$\sigma_{cr} = 0{,}5\,(E_{cps}E_cG)^{1/3}$

where

σ_{cr} = critical skin buckling stress, in N/mm^2
E_c = compressive modulus of the core material, in N/mm^2

E_{cps} and G are as defined in Ch 3,1.5.1

Part 8, Chapter 7
Failure Modes Control

Effective date 1 July 2011

■ *Section 3*
Stress control

3.5 Core shear stress

3.5.1 ~~In the core of all sandwich constructions the core shear stress is not to exceed 30 per cent of the ultimate core shear strength of the core material, *see also* Ch3, 1.13.9.~~

3.5.1 The limiting core shear stress criteria values are given in Table 7.3.3. These values are expressed as a fraction of the ultimate core shear strength of the core material, *see also* Ch 3,1.13.9.

3.5.2 The ultimate core shear strength of the core material is to be taken as 90 per cent of the mean ultimate shear strength determined from accepted mechanical tests, or the mean minus two standard deviations based on a minimum of five samples, whichever is less. All test pieces are to be representative of the product to be manufactured and details are to be submitted for consideration.

3.5.3 In the absence of suitable test data, LR will consider basing the ultimate core shear strength on manufacturer recommended minimum design values based on mechanical tests performed by the core material manufacturer using accepted test methods.

Table 7.3.3 Limiting core shear stress criteria

Core Material	Limiting shear stress fraction
PVC	0,45
All other cores	0,35

Part 17, Chapter 1

Fire Protection, Detection and Extinction - General

Effective date 1 July 2011

■ *Section 1*
General requirements

1.1 Application

1.1.2 Consideration will be given to the acceptance of fire safety measures:

~~(a) which have been prescribed and approved by the Goverment of the Flag State;~~
(a) which, for Service Craft, have been prescribed and approved by the Government of the Flag State;
(b) which, for yachts, have been prescribed and approved by the Government of the Flag State, provided that these are shown to be equivalent to those required by the MCA LY2 Code as amended; or
(c) where the arrangements are considered equivalent to those required by these Rules as a result of risk assessment studies; or
(d) where the arrangements are considered acceptable compared to those required by these Rules, due cognisance having been taken of any restricted service limits.

1.2 Submission of plans and information

1.2.5 For yachts, where fire plans and the information listed above have been appraised, approved and verified on board by the Flag Administration in compliance with the MCA LY2 Code as amended, Lloyd’s Register will only acknowledge the aforementioned and therefore no further appraisal, approval or survey should be provided.

© Lloyd’s Register, 2010
Published by Lloyd’s Register
Registered office
71 Fenchurch Street, London, EC3M 4BS
United Kingdom